CHAPTER 9: MAP OPTIONS

9.0 MAP OPTIONS

The MAP OPTIONS menu contains utilities to manipulate and enhance the tactical display. Use these selections to:

- Control the dimensions and fields of view.
- Present 3-D and LOS Profile (line-of-sight) views using DTED data.
- Show country features, from roads and rivers to political boundaries.
- Store and recall maps for specific areas.

MAP COVERAGE Box

A map coverage box always appears in the lower-right section of the screen. It shows the position of the center point of the map and the width of the screen—the precise view of the world.

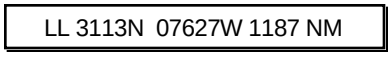

Figure 9.0-1 Map Coverage Box

The MAP COVERAGE box shows the width of the screen in nautical miles (NM)—rounded to the nearest whole mile or tenth of a mile; in miles (MI); or kilometers (KM).

- Click the box once to show the screen width in KM:
  - 3113N 07627W 2198 KM
- Click the box again to show the screen width in NM, rounded to the nearest tenth of a mile:
  - 3113N 07627W 1187.0 NM
- Click a third time to show the width in MI, rounded to the nearest whole mile:
  - 3113N 07627W 1366 MI
- Click a fourth time to return to the initial reading in NM, rounded to the nearest whole mile once again (LL 3111N 07627W 1187 NM).

POINTER POSITION Box

To the immediate left of the map coverage box is the POINTER POSITION box. This box always shows the position of the pointer.

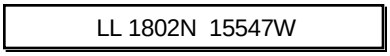

Figure 9.0-2 Pointer Position Box

The POINTER POSITION box initially shows the lat/long position of the pointer in degrees and minutes (LL 1802N 15547W); however, clicking the position box will cause the display to reflect different measurements:

- Click once, the position is shown in degrees, minutes, and seconds: (LL 18:02:09N 155:46:56W).
- Click to show the position in degrees, minutes, seconds, *and* tenths of seconds:
  (LL 18:02:08.7N 155:46:56.4W).
- Click to show the position with MGRs—Military Grid Reference System: (MGR 05Q KV-05419–96357).
- Click to show the Universal Transverse Mercator (UTM) value for the pointer position:
  (UTM +05 1996357 0205419).
- Click to show the geographical reference point value for the pointer position:
  (GEOBHKD1302).

Important: Set the POINTER POSITION box to show the type of position units, then enter those values *in the same units* in any window (field) that requires a position value. For example, if UTM values are set in the POINTER POSITION box, all positions must be entered with UTM units.

This chapter discusses the options found on the MAP OPTIONS pull-down menu:

SUMMARY OF COMMON OPERATIONS—MAP OPTIONS

Window buttons and pop-up menu options that perform functions common to most JMCIS operations are described in this section and will not be discussed in detail in the following sections. The buttons and options listed below are routinely found on Map Options windows. A brief explanation of their common meaning is provided; however, those that are "exceptions to the rule" will be discussed as applicable within their respective section.

Note: See Appendix A, *Common Operations,* for a more detailed description of these buttons and options.

ACTIVATE—turns the designated object/function ON. For example, to activate an overlay means to plot it on the tactical display.

ADD—engages a window to add a like record or function.

APPLY—performs the currently selected operation. For example, if the action is to compute certain values, clicking APPLY carries out the operation.

CANCEL—discards any changes made to a record and returns to the previous function.

DEACTIVATE—turns the designated object/function OFF.

DELETE—removes (deletes) the selected record(s) from the database.

EDIT—engages a window to view or change the settings of a record.

EXIT—exits (leaves) the option in use.

EXPORT—sends an individual record from one workstation to others on the network.

HELP—provides a general description of the option, function, or window.

OK—accepts any changes made to a record and returns to the previous function.

RECALL—retrieves the saved settings (for example, a map) to the tactical display.

RESTORE—retrieves stored records to their original database.

SAVE—saves a copy of the current settings for recall at a later time.

SELECT ALL—selects all items in a list.

UNSELECT ALL—deselects all items in a list.

9.1 ZOOM (F1)

Use the ZOOM option to redraw and plot a zoomed view of a specific area of the current tactical display.

Optional ZOOM access: Click ZOOM from the bottom bar on the screen.

To access this window: MAP OPTIONS menu : ZOOM option : ZOOM MAP window (Figure 9.1-1).

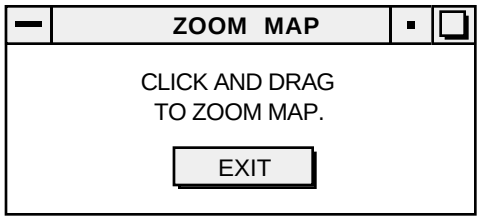

Figure 9.1-1 Zoom Map Window

To select a ZOOM area:

1. Click a point to be the center of the new map.
2. Move the trackball outward from the point to form a zoom box.
3. Click the left trackball button and the area in the zoom box fills the screen.
4. The smallest zoom width is 0.10 NM across.
5. Click EXIT to leave this option.

9.2 DOUBLE (F2)

Select DOUBLE (or press F2 to redraw the map around the current center point, to double the current horizontal map width.

- When the Mercator projection is used to view the map, the maximum map width is determined by the latitude of the center point. Thus, at the equator the maximum width is 21,600 nautical miles, while at the poles the maximum width is smaller.
- If doubling the current map makes the map width larger than the maximum, the width displays at maximum width.
- Clicking OUT from the bottom bar also doubles the current map width.

9.3 HALF (F3)

Select HALF (or press F3) to redraw the map around the current center point to reduce the current horizontal map width by half.

- Gives a moderately "zoomed-in" view of the map.
- Smallest view width is 0.10 NM across.
- Can also be chosen by clicking IN from the screen's bottom bar.

9.4 CENTER/WIDTH (F4)

Select CENTER/WIDTH (or press F4) to specify new map settings—center, width, and projection.

To access this window: MAP OPTIONS menu : CENTER/WIDTH option : CENTER/WIDTH window (Figure 9.4-1).

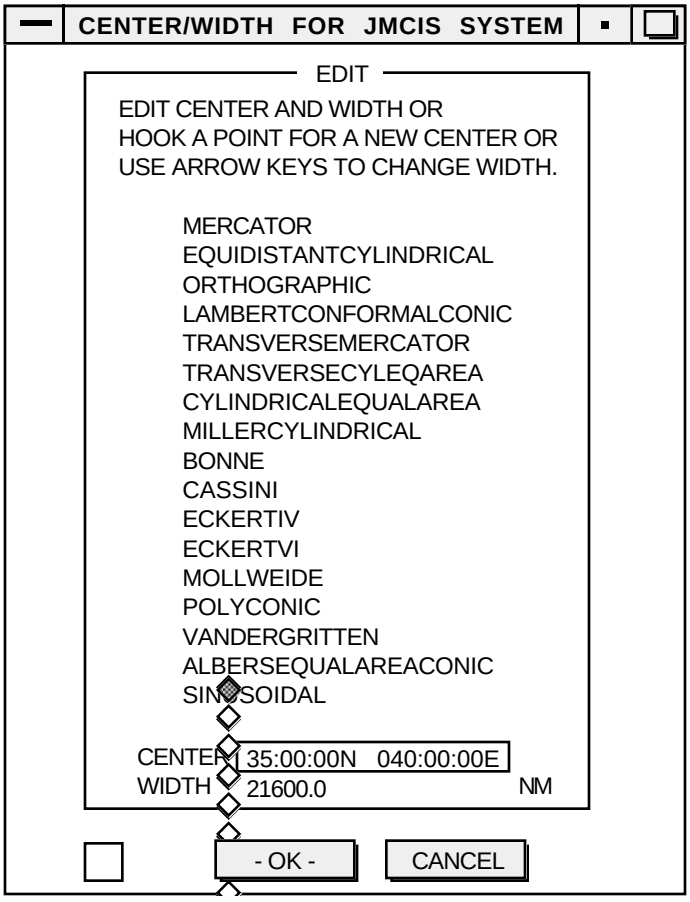

Figure 9.4-1 Center/Width Window

To specify the map settings:

1. When the CENTER/WIDTH window opens, the fields contain information for the current tactical display.
2. Choose a diamond knob for the map projection. Available map projections are described in detail in Appendix D, *Map Projections*.
3. In the CENTER field, enter new values for the latitude and longitude using one of two methods:
   - Type the values.
   - Click a point on the display.
4. In the WIDTH field, enter a new value for the map width in nautical miles. Or, press the up or down arrow key on the numeric keypad to adjust the width by 10 percent of the indicated value.
5. Click OK to redraw the map with the new settings, or click CANCEL to discard any new settings.

Important Note—Map Projections

The CENTER/WIDTH window and the CENTER button (bottom of the map window), use the most reasonable projection available for the requested display center/width.

Projection choices reflect the current center's latitude and the upper or lower limits of the display area.

For example, using a Mercator projection:

1. Select a new center/width with a very northern display area—75°N—top of the map window.
2. The Mercator projection will still be used.

However:

1. Click a new map center/display width.
   - The new display area extends to 83°N.
   - The projection automatically shifts from Mercator to Orthographic. (Mercator projection display limits are from 82.5°N to 82.5°S.)
2. Select another display area that does not extend this far north—the map projection will automatically revert back to the Mercator map display.

CENTER/WIDTH Pop-Up Menu

In addition to the options described in the *Summary of Common Operations* (OK and CANCEL), the CENTER/WIDTH pop-up menu also includes:

SAVE

Saves a copy of the current map to recall at a later time. This option works the same as the save process in the STORED MAPS option. See the *STORED MAPS* section in this chapter for more details.

RECALL

Recalls a saved map. This option works the same as the save process in the STORED MAPS option. See the *STORED MAPS* section in this chapter for more details.

9.5 WHOLE WORLD

Use the WHOLE WORLD option to expand the current map to a view of the entire world, while retaining the map center and map projections.

- If the current view is at the equator, the width expands to 21,600 miles.
- If the current view is north or south of the equator, the width is appropriately less than 21,600 miles, depending on the distance from the equator. The farther away from the equator, the smaller the width when the whole-world option is used.

9.6 BEARING/RANGE (F6)

Use the BEARING/RANGE option (or the F6 key) to show a line from a selected area on the tactical display outward toward the pointer position—with the bearing and range listed from the selected area to the pointer.

Info note: The Bearing/Range function uses Rhumbline projection algorithm.

Press F6 and a new box appears at the bottom of the screen to the left of the pointer position box, the bearing/range box (Figure 9.6-1).

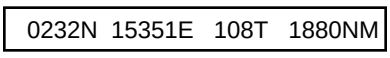

Figure 9.6-1 Bearing/Range Box

1. Click the trackball button anywhere on the tactical display to create a starting point.
   - As the pointer is moved away from the starting point, a white line appears from the starting point to the current pointer position. (Figure 9.6-2).
   - The latitude and longitude of the starting point is listed in the bearing box, followed by the bearing and range from the starting point to the pointer.

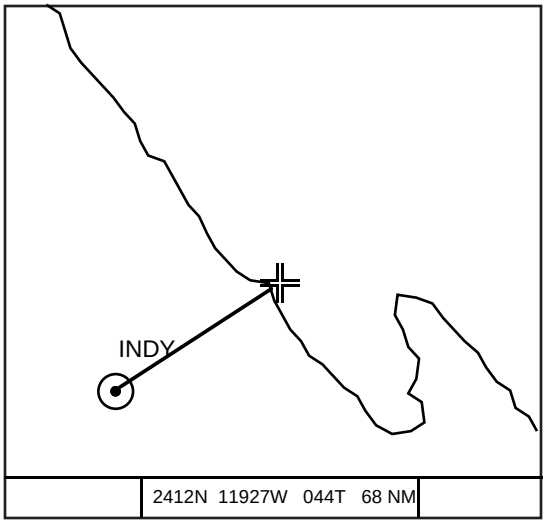

Figure 9.6-2 Example of Bearing/Range (F6 key) usage.

2. Position measurements other than lat/long (e.g., UTM, MGR, etc.), can be listed in the pointer position box. The bearing/range box shows information in the same measurement units indicated in the pointer position box.
3. To select a new starting point, move the pointer to the desired location and click the trackball button.
4. To toggle this function OFF, press F6 again (or use the pull-down menu option).

9.7 CIRCLE/RANGE (F7)

Use the CIRCLE/RANGE option (or F7 key) to display a circle around a selected point. This feature is commonly used with the bearing and range functions.

Info note: The Circle/Range function uses Rhumbline projection algorithm.

Press F7 (or select the menu option) and a new box appears at the bottom of the screen, left of the pointer position box, the bearing/range box (Figure 9.7-1).

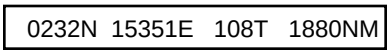

Figure 9.7-1 Bearing/Range Box

1. Click the trackball button anywhere on the tactical display to create a center point for the circle.
   - As the pointer moves away from the center, a white circle appears and grows larger the farther it is moved from the center point. (Figure 9.7-2).

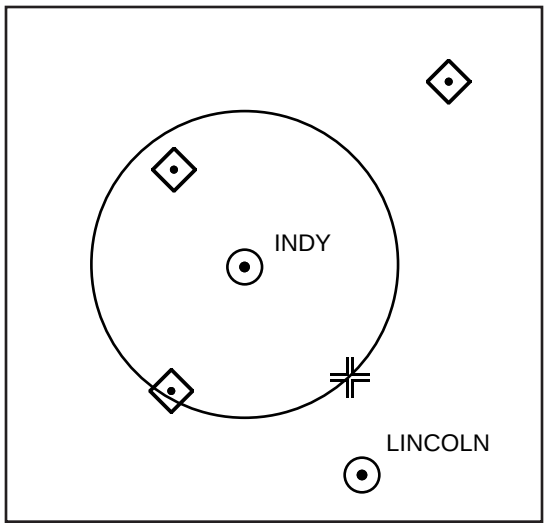

Figure 9.7-2 Example of Circle/Range (F7 key) usage.

2. The lat/long of the center point is listed in the bearing/range box, followed by the bearing and range from the center of the circle to the pointer.

Note: There are position measurements other than lat/long (e.g., UTM, MGR, etc.) listed in the pointer position box. Information in the bearing/range box is shown in the same measurement units as those indicated in the pointer position box.

To select a new center point:

1. Move the pointer to desired location and click the trackball button.
2. Press F7 again to toggle the function OFF.

9.8 CENTER ON

Use the CENTER ON option to center the map on a specific object.

1. From the MAP OPTIONS pull-down menu, highlight and click the CENTER ON option to show a cascading menu.

2. Choose one of the following cascading menu options: CURSOR, OWNSHIP, TRACK, or FOLLOW.

9.8.1 CENTER ON—CURSOR

Use the CURSOR option to center the map on a specified pointer position.

To access this window: MAP OPTIONS menu : CENTER ON option : CURSOR cascading option : CENTER ON CURSOR window (Figure 9.8-1).

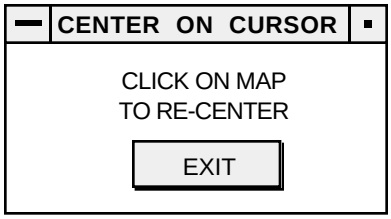

Figure 9.8-1 Center On Cursor Window

To center on a cursor point:

1. Move the pointer to a position for the center and click the left trackball button.
2. The map immediately redraws and the window closes.
3. The position clicked becomes the new center point, and the map width remains the same.
4. Click EXIT to exit from the option without centering on a cursor point.

9.8.2 CENTER ON—OWNSHIP

Use the OWNSHIP option to center the map, based on the position of the track designated as OWNSHIP.

To access this window: MAP OPTIONS menu : CENTER ON option : OWNSHIP cascading option : CENTER ON TRACK window (Figure 9.8-2).

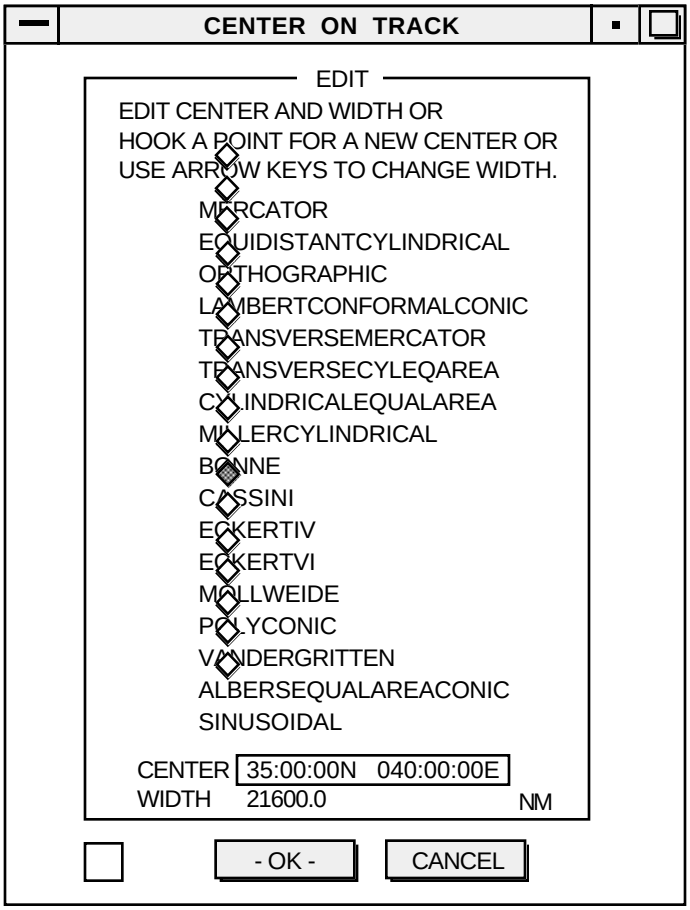

Figure 9.8-2 Center On Track (Ownship) Window

To center on OWNSHIP:

1. The CENTER ON OWNSHIP window shows the latitude and longitude of OWNSHIP and retains the map width used before this option was selected.
2. Change the projection or map width, if desired.
3. Click OK to redraw the map centering on OWNSHIP, or click CANCEL to retain the current map.

CENTER ON OWNSHIP Pop-Up Menu

Options on the CENTER ON OWNSHIP pop-up menu (SAVE, RECALL, OK, and CANCEL) perform as described in *Summary of Common Operations.*

9.8.3 CENTER ON—TRACK

Use the TRACK option to center the map based on the position of a selected track. Before using this option, select one track on which to center the map.

To access this window: (Select a track) MAP OPTIONS menu : CENTER ON option: TRACK cascading option : CENTER ON TRACK window (Figure 9.8-3).

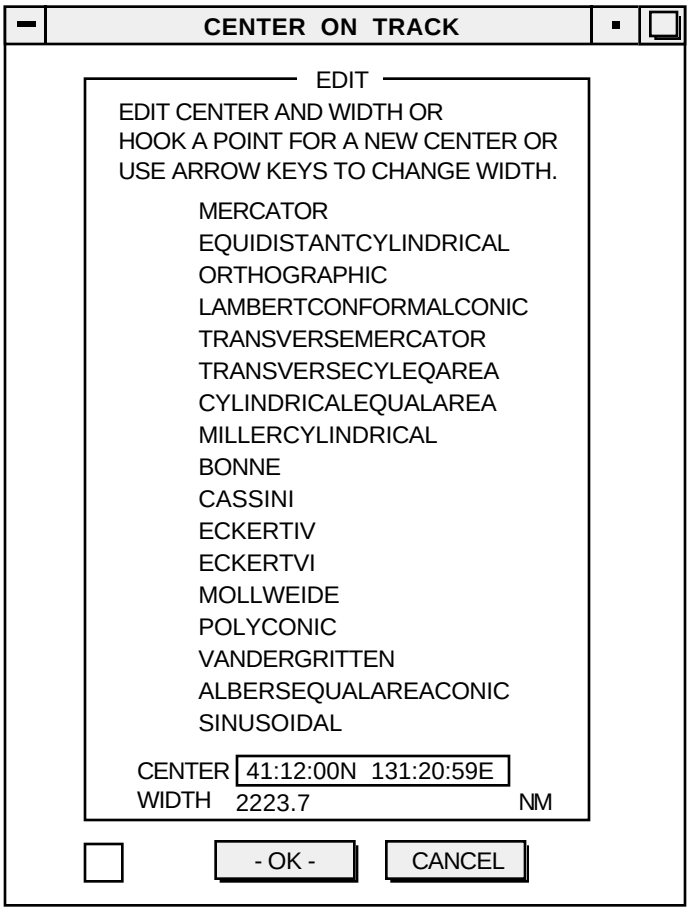

Figure 9.8-3 Center On Track Window

To center on a track:

1. The CENTER ON TRACK window shows the latitude and longitude of the selected track, and retains the current map width.
2. Change the projection or map width, if desired.
3. Click OK to redraw the map centering on the track, or click CANCEL to retain the current map.

CENTER ON TRACK Pop-up Menu

Options on the CENTER ON TRACK pop-up menu (SAVE, RECALL, OK, and CANCEL) are described in *Summary of Common Operations.*

9.8.4 CENTER ON—FOLLOW

Use the FOLLOW option to center on and follow a selected track.

To access this window: MAP OPTIONS menu : CENTER ON option : FOLLOW cascading option : FOLLOW TRACK window (Figure 9.8-4).

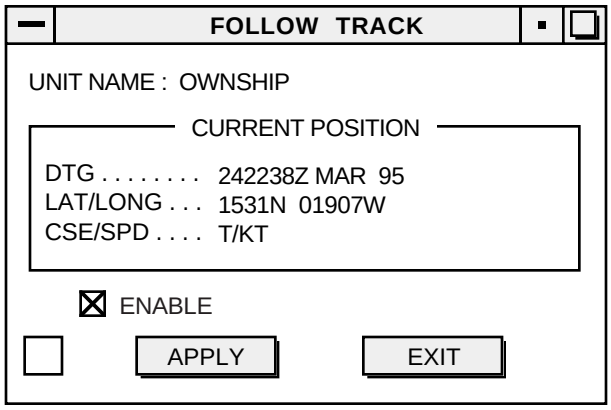

Figure 9.8-4 Follow Track Window

How the FOLLOW TRACK option works:

1. The fields are empty the first time this window appears; thereafter, the last track chosen for this option is described.
2. Click on a track. Information for the selected track automatically appears in the window fields (described below).
3. To find a particular track, use the QUICK SEARCH pop-up option.
   - Select QUICK SEARCH from the FOLLOW TRACK pop-up menu to open the QUICK SEARCH window (Figure 9.8-5).
   - Enter the track name in the search string and click OK.
4. Toggle the ENABLE checkbox ON.
5. Click APPLY to redraw the map centered on the selected track and engage the follow track process.
6. Click EXIT to close the window.
7. The tactical display follows the track.
   a. As new track reports are received, the track moves away from the center point without the map updating to recenter it.
   b. When the track reaches the left quarter or the right quarter of the tactical display, the map redraws to recenter the track.

c. If the map view is changed so the track no longer appears on the new view, the system automatically turns the follow track mechanism off and shows a notification message about this action on the screen.

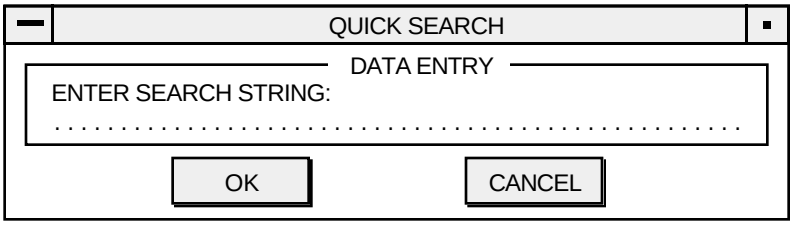

Figure 9.8-5 Quick Search Window

FOLLOW TRACK Window Fields

UNIT NAME
Name of the currently selected track for this option.

DTG
Date-time group of the most recent report for the track.

LAT/LONG
Track's last reported position.

CSE/SPD
Course and speed of the track, based on the last report.

9.9 DEFAULT CHART

Use the DEFAULT CHART to open the map designated as the default map (see *SET DEFAULT CHART*). The current map is replaced by the default map.

9.10 SET DEFAULT CHART

Use the SET DEFAULT CHART option to specify the latitude, longitude, and width settings for a default map. The default map can be recalled at any time with the DEFAULT CHART option from the MAP OPTIONS pull-down menu.

To access this window: MAP OPTIONS menu : SET DEFAULT CHART option : CENTER/WIDTH FOR JMCIS SYSTEM window (Figure 9.10-1).

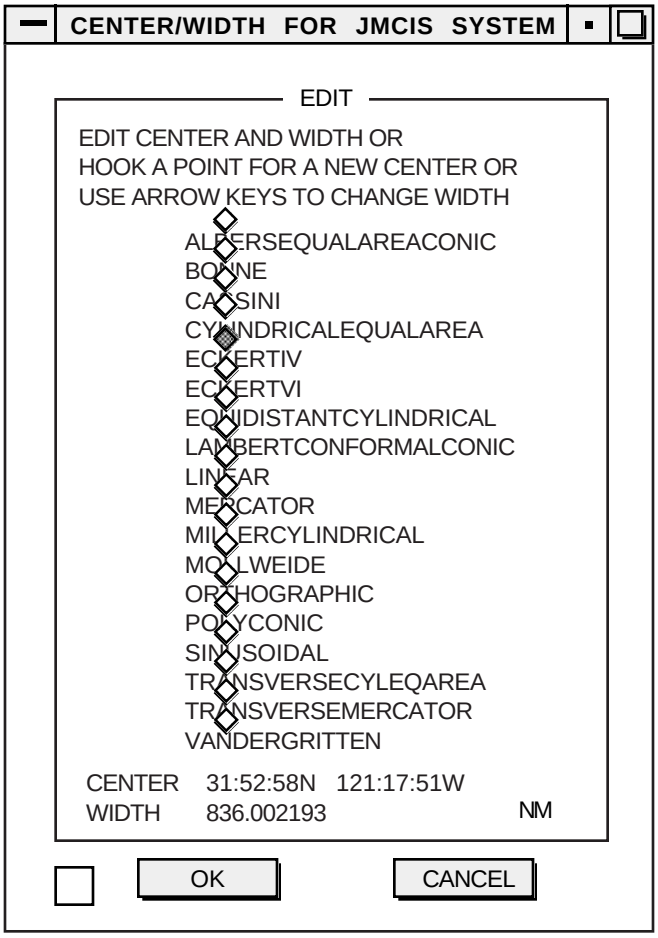

Figure 9.10-1 Center/Width Window

To change the settings for the DEFAULT MAP:

1. Choose a projection by clicking the appropriate diamond knob.
2. In the CENTER field, enter new values for the latitude and longitude, using one of two methods:
   - Type the values.
   - Click a point on the display.
3. In the WIDTH field, enter a new value for the map width.
4. Click OK to save the new default settings, or click CANCEL to discard any new settings.
5. If the settings are saved, the map is redrawn to those settings whenever the DEFAULT MAP option is chosen.

SET DEFAULT MAP Pop-up Menu

Options on the SET DEFAULT MAP pop-up menu (SAVE, RECALL, OK, and CANCEL) perform as described in *Summary of Common Operations.*

9.11 PREVIOUS CHART

Select PREVIOUS CHART from the MAP OPTIONS menu to redisplay the previous map.

- Each time the map is changed (zoom, double, halve, center and width specified, or map recalled), the previous map center and width are temporarily saved.
- Quickly switch back and forth between two maps by repeatedly selecting this option.
- Only the last map center and width are restored by this option. Tracks and other plotted data may appear different, as they are dependent on the database and operator-selected display options.

9.12 ADD PRODUCT

Use the ADD PRODUCT option to quickly load a different map type—*if* a map of the type chosen is available for the current view.

Select ADD PRODUCT and choose a map type from the list of available choices on the cascading menu (DTED, IMAGE, ADRG, CADRG, CIB, DNC, DCW, VMAP, UVMAP, DTOP, VITD, or DFLIP).

- If only one map of the chosen type exists for the screen view and the chosen map fits within the view, the map is automatically drawn on the screen.
- If only one map of the chosen type exists for the screen view but the chosen map doesn't fit the viewing area, a message appears.
  - Follow the instructions in the message window to zoom the screen or cancel the new map request.
  - If zoom is selected, the screen view changes to accommodate the new map and it is drawn on the screen.
- If more than one map of the chosen type exists for the screen view, the JMTK MAP MANAGER window appears. (See the *MAP CONTROL* option to choose from the existing map types.)
- If no maps of the chosen type exist for the screen view, a message is shown that "there are no maps available for the current screen view."

9.13 MAP CONTROL

Use the MAP CONTROL option to save a map or to view a previously saved map. MAP CONTROL is used to view vector, raster, and DTED maps.

To access this window: MAP OPTIONS menu : MAP CONTROL option : JMTK MAP MANAGER window (Figure 9.13-1).

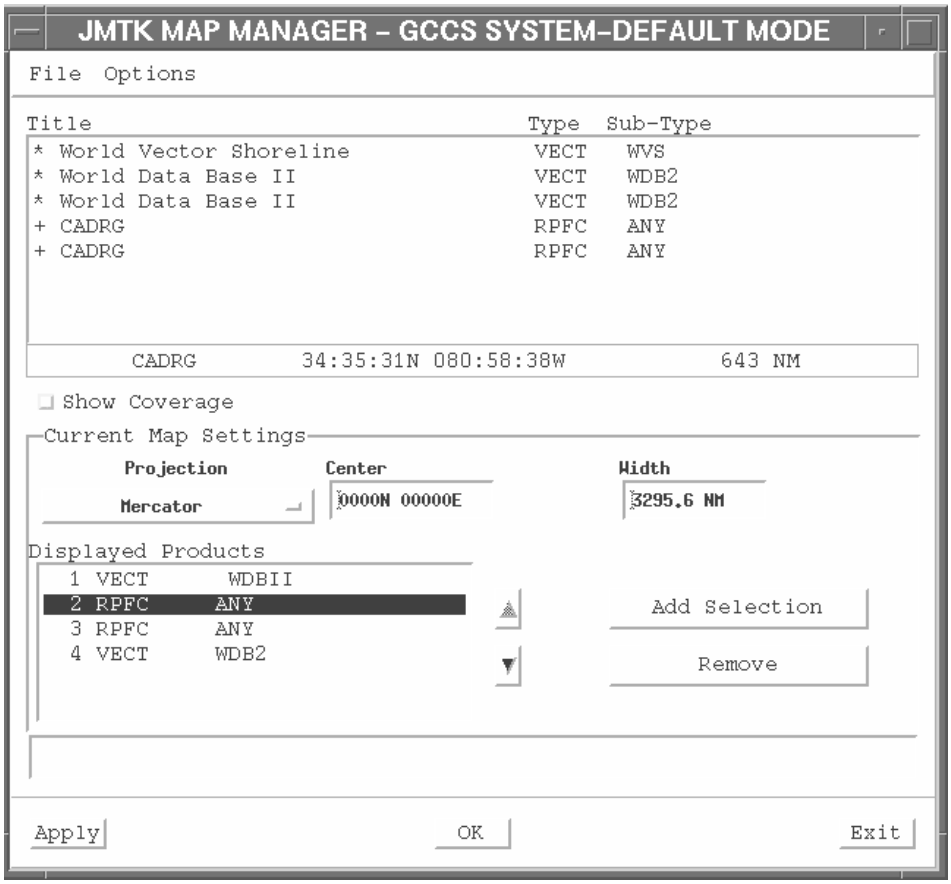

Figure 9.13-1. JMTK MAP MANAGER Window

The JMTK MAP MANAGER window lists the maps that are currently saved by TITLE, TYPE, and SUB-TYPE:

TITLE
Lists the name of the map.

TYPE
Lists the type of map (e.g., vector, Digital Nautical Chart).

SUB-TYPE
Lists the sub-type (World Vector Shoreline, Tactical Lineage Map).

Next to the map titles are a +, -, or *. A + means that the dataset has a sublist. Click on the + and an expanded list of maps appears. The - means that the list has been expanded. A * means that the dataset does not have an expanded list of maps.

JMTK Map Manager Window Buttons and Toggles

The SHOW COVERAGE toggle shows the outlines of maps in the tactical display.

1. Click on the toggle to select it (i.e., the box is filled).
2. Select the map product from the list in the upper portion of the window. The map product coverage is outlined on the display. Conversely, you can also click on an outline to see its corresponding entry in the map list. Click again to deselect it.
3. Double-click the left mouse button. The selected map is drawn.

The ADD SELECTION and REMOVE buttons are used in conjunction with the DISPLAYED PRODUCTS list. They are used to add products to the list of currently displayed map products so that the maps will be drawn when APPLY or OK is clicked. More than one entry may be selected to add or remove several at once.

Once you have your desired settings and the correct list of maps, select APPLY, OK, or EXIT:

APPLY
Applies current map settings to the window and redraws the window.

OK
Applies current map settings, redraws, and exits the window.

EXIT
Exits the application without applying the current map settings.

Moving the cursor on the different attributes in the MAP MANAGER window produces a description in the text field at the bottom of the window.

Note: The first map in the list can *never* be removed. This is the default system map.

How to use the JMTK MAP MANAGER Window

1. In the JMTK MAP MANAGER window, single-click on a map product to receive the latitude and longitude of the map's center and its width in nautical miles. These appear in the text box below the list.
2. Highlight the map you want to draw by clicking on it with the cursor, and then double-clicking the left mouse button.

—Or—

3. Add the map to the DISPLAYED PRODUCTS list by clicking on the title, and then clicking ADD SELECTION.

4. Select APPLY or OK for the selection to be drawn.

Three fields are used to customize the view of a map product: PROJECTION, CENTER, and WIDTH:

PROJECTION
Changes the projection used to draw maps. (This is a pop-up menu.)

CENTER
Changes the map center. Uses a format of ddmm (N/S) dddmm (E/W).

WIDTH
Changes the map width. Value is in nautical miles.

PROJECTION, CENTER, and WIDTH are updated each time the map is redrawn (e.g., after using the PAN OUT or CENTER CHART window buttons in the SYSTEM CHART window) or, any or all of these features may be manually changed.

1. Click in the field you wish to change (i.e., PROJECTION, CENTER, or WIDTH).

2. Modify/delete the existing data until it reflects the desired coverage.

3. Click on a map product in the list in the upper portion of the window.

4. Click APPLY. The selected map product will be redrawn and the appropriate view features modified to reflect your changes.

The DISPLAYED PRODUCTS section of the window provides a list of maps that will be drawn if APPLY or OK is pressed.

To add a selection:

1. Click on one or more map product(s) in the list in the upper portion of the window.

2. Click ADD SELECTION to add the selected product(s) to the DISPLAYED PRODUCTS list.

3. Click APPLY or OK.

To remove a selection:

1. Click on one or more map product(s) in the list in the DISPLAYED PRODUCTS portion of the window.

2. Click REMOVE and all selected products are removed.

Use the up and down arrow keys to control the order in which the maps are drawn. Vector maps will always be drawn first.

How to use the JMTK MAP MANAGER Window Pull-Down Menus

The JMTK MAP MANAGER window has two pull-down menus: FILE and OPTIONS.

The FILE menu allows you to LOAD, SAVE, and DELETE saved files, as well as EXIT the application.

LOAD
Loads a saved file and resets the current settings area. Press the APPLY button to draw the map.

SAVE
Saves values in the CURRENT SETTINGS area for recall later.

1. Select SAVE from the FILE pull-down menu. The SAVE CURRENT MAP SETTING window appears (Figure 9.13-2).

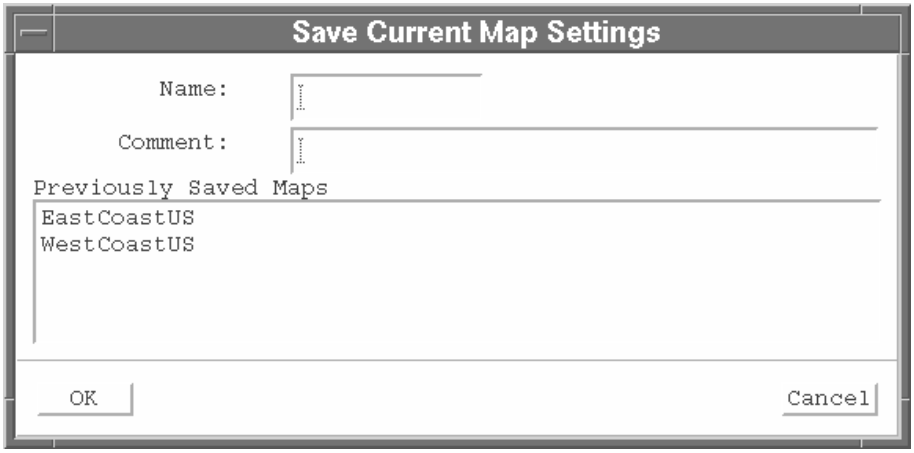

Figure 9.13-2 SAVE CURRENT MAP SETTINGS Window

2. Fill in the NAME and COMMENT text fields with the appropriate information.

   The window displays an alphabetical list of all previously saved maps.

3. Click OK to accept changes, or click CANCEL to exit and cancel changes.

DELETE
Deletes a saved map file.

EXIT
Exits the application without applying current map settings.

The OPTIONS pull-down menu has one option: SCALE OPTIONS.

1. Click on SCALE OPTIONS. The SCALE CONFIGURATION window appears (Figure 9.13-3). This window allows you to set the scale defaults for drawing maps.

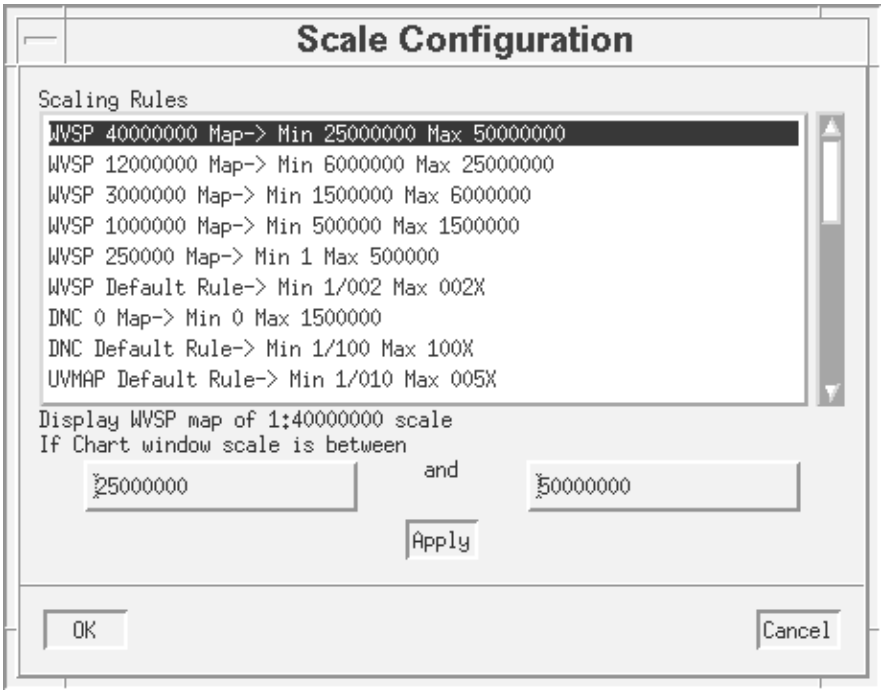

Figure 9.13-3. Scale Configuration Window

The list of maps and scales is under the SCALING RULES section of the SCALE CONFIGURATION window, which lists TYPE and MINIMUM-MAXIMUM SCALE of available maps.

2. Click on a map from the list.
3. Add values to the MINIMUM and MAXIMUM fields by clicking in them and modifying/clearing the current information.
4. Click APPLY. Future redraws of the selected map will use the new scale settings rule. For example, if you set map X: 50000 to minimum 20,000 and maximum 300,000. Map X will draw a 1:50,000 map in the chart window if the chart window is between 1:20,000 and 1:300,000.
5. To save changes to the minimum and maximum scales, click OK. To ignore changes, click CANCEL.

9.14 VECTOR DISPLAY CONTROL

The geographical features displayed on a map and the symbols used to depict other items on a map (e.g., dual-lane highways) are all described in a map profile. The Vector Display Control (VDC) option allows you to determine the features (e.g., dual-lane highways) to be depicted on a mapping product by editing the profile. This option also allows you to edit the symbology used for each feature. *VDC is available for use for the VPF and DTED suite of data mapping products.*

Before using this option, a VPF map must be drawn on the system. Use the MAP CONTROL option in the MAP OPTIONS pull-down menu to view the maps that are available on the system. Double click on a VPF map from the list to draw it. The VDC option may now be invoked.

The power behind the VDC option is in its customizability.

To access this window: MAP OPTIONS menu **:** VECTOR DISPLAY CONTROL option **:** VECTOR DISPLAY window (Figure 9.14-1).

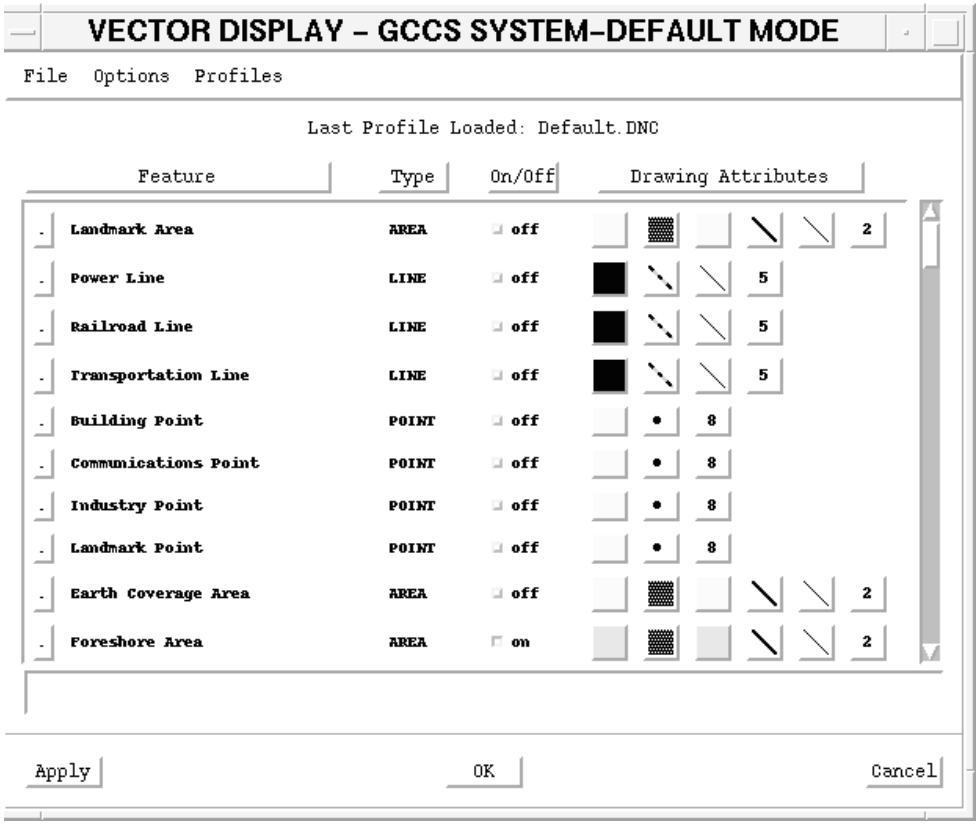

Figure 9.14-1. VECTOR DISPLAY Window

The VECTOR DISPLAY window defaults to displaying the last profile loaded and has three pull-down menus: FILE, OPTIONS, and PROFILES.

FILE

Use the EXIT option to close the VECTOR DISPLAY window.

OPTIONS

Use the NORMAL SORT/REVERSE ORDER option (a toggle), to sort the available profiles in regular order or the reverse order. This sort preference affects all sorts in the window (i.e., the FEATURE, TYPE, ON/OFF, and DRAWING ATTRIBUTES sorts described later in this section).

PROFILES

Use the SAVE CURRENT PROFILE option to save the currently displayed profile. Use the DELETE PROFILE option to delete unnecessary profiles from the list of available profiles. Use the DEFAULT .[Map Product Profile] option to load an available profile.

To save the current profile:

1. Adjust the setting on the current profile to suit your needs.
2. Select SAVE CURRENT PROFILE from the PROFILE menu. The SAVE PROFILE_POPUP window appears.
3. Enter the name under which you wish the current profile to be saved. Click OK or CANCEL.

To delete a profile:

1. Select DELETE PROFILE from the PROFILE menu. The DELETE PROFILE_POPUP window appears, listing all available profiles.
2. Highlight the profile you wish to delete and click OK.

To load a DEFAULT .[Map Product Profile] file:

1. Select the DEFAULT .[Map Product Profile] file from the PROFILE menu.
2. Wait for the profile to load into the system. The new profile will be available in the VECTOR DISPLAY window, and all drawing attributes will be reflected in the columns in the window.

The VECTOR DISPLAY window has five columns of information: SWITCH, FEATURE, TYPE, ON/OFF, and DRAWING ATTRIBUTES. The list of information may be sorted by any column, in either normal order or reverse order (depending on which has been specified in the setting under the OPTIONS pull-down menu).

SWITCH

Shows if a feature has edit rules. If the switch is a •, there are no edit rules other than the default. If the switch is a +, there are edit rules.

Click on the • or + and the EDIT RULES window appears.

FEATURE

Shows the feature name. Click on the heading to sort the list of features by name.

TYPE

Shows the type of feature (e.g., area, line, point). Click on the heading to sort the list by type.

ON/OFF

Shows if the feature is on or off. Click on the heading to sort by feature.

DRAWING ATTRIBUTES

Shows drawing attributes. Click on the heading to sort the features by drawing priority.

How to use the VECTOR DISPLAY Window

1. Load a profile from the list of available profiles on the PROFILES pull-down menu.
2. Edit the profile by using the DRAWING ATTRIBUTES and EDIT RULES FEATURES (see Section 9.14.1 and 9.14.2, respectively).
3. When you finish viewing and editing the profile, click the OK button to commit your changes and exit the screen.

—Or—

Use the APPLY button to apply the changes, but not exit the screen.

The CANCEL button aborts your changes and exits the screen.

4. If you wish to save the profile, use the SAVE PROFILE option on the PROFILE pull-down menu.

With DTED map products, you can invoke color contouring to analyze elevation data. The range of colors used represents the topography of the area. The meaning behind the color is important in this range of mapping products. A darker color may mean the point is higher than a lighter shaded area, or it may mean the opposite depending on your preference.

VDC is used to edit the range of elevation values and the degree of shading for each range. The SERIES OF RULES in VDC lists the range of values and the shade of color used to depict that range. The greater the number of colors, the greater the

choices and specialization of the data. For example, if you choose to invoke many colors, say 360, the difference between a flat area and a slightly flat area is apparent, but if you use only a few colors, 10 for example, the flat area and slightly flat area will blend as the range of numbers for that shade grows to include a greater number of elevations.

9.14.1 DRAWING ATTRIBUTES

There are four types of drawing attributes: Area, Line, Point, and Text. Each feature on the drawing is designated as being one of these four types in the TYPE column in the VECTOR DISPLAY window. Depending on what type of attribute it is, the applicable "boxes" are displayed in the DRAWING ATTRIBUTES column.

AREA Box

The AREA box is active only if the feature is drawn as an area (i.e., the TYPE column designates it as . Fields within the AREA box are FILL COLOR, FILL PATTERN, EDGE LINE COLOR, EDGE LINE STYLE, EDGE LINE WIDTH, and DRAWING PRIORITY:

FILL COLOR
Toggles to set the color of the area.

FILL PATTERN
Toggles to set the fill pattern for the area.

EDGE LINE COLOR
Sets the color of the area edges.

EDGE LINE STYLE
Toggles to set the line style for the area edges.

EDGE LINE WIDTH
Sets the line width of the area edges.

DRAWING PRIORITY
Shows the priority of the feature. When two or more features cover the same area on the tactical display, the one with the *highest* priority appears on top of any other features.

LINE Box

The LINE box is active only if the feature is drawn as a line. Fields within the LINE box are: LINE COLOR, LINE STYLE, LINE WIDTH, and DRAWING PRIORITY:

LINE COLOR
Toggles to set the color of the line.

LINE STYLE
Toggles to set the style for the line.

LINE WIDTH
Sets the line width. Default line width is 1.

DRAWING PRIORITY
Shows the priority of the feature. When two or more features cover the same area on the tactical display, the one with the *highest* priority appears on top of any other features.

POINT Box

The POINT box is active only if the feature is drawn as a point. Fields within the POINT box are COLOR, SYMBOL, and DRAWING PRIORITY:

COLOR
Toggles to set the color of the point.

SYMBOL
Toggles to set the symbol for the point.

DRAWING PRIORITY
Shows the priority of the feature. When two or more features cover the same area on the tactical display, the one with the *highest* priority appears on top of any other features.

TEXT Box

The TEXT box is active only if the feature is text. Fields within the TEXT box are COLOR and DRAWING PRIORITY:

COLOR
Toggles to set the color of the text. Default text color is black.

DRAWING PRIORITY
Shows the priority of the feature. When two or more features cover the same area on the tactical display, the one with the *highest* priority appears on top of any other features.

9.14.2 EDIT RULES WINDOW

To add attributes and edit the symbology for map features, click on the • or + in the SWITCH column of the VECTOR DISPLAY window. The EDIT RULES FOR [FEATURE] window, which is very similar but not necessarily identical to the figure below, appears (Figure 9.14-2).

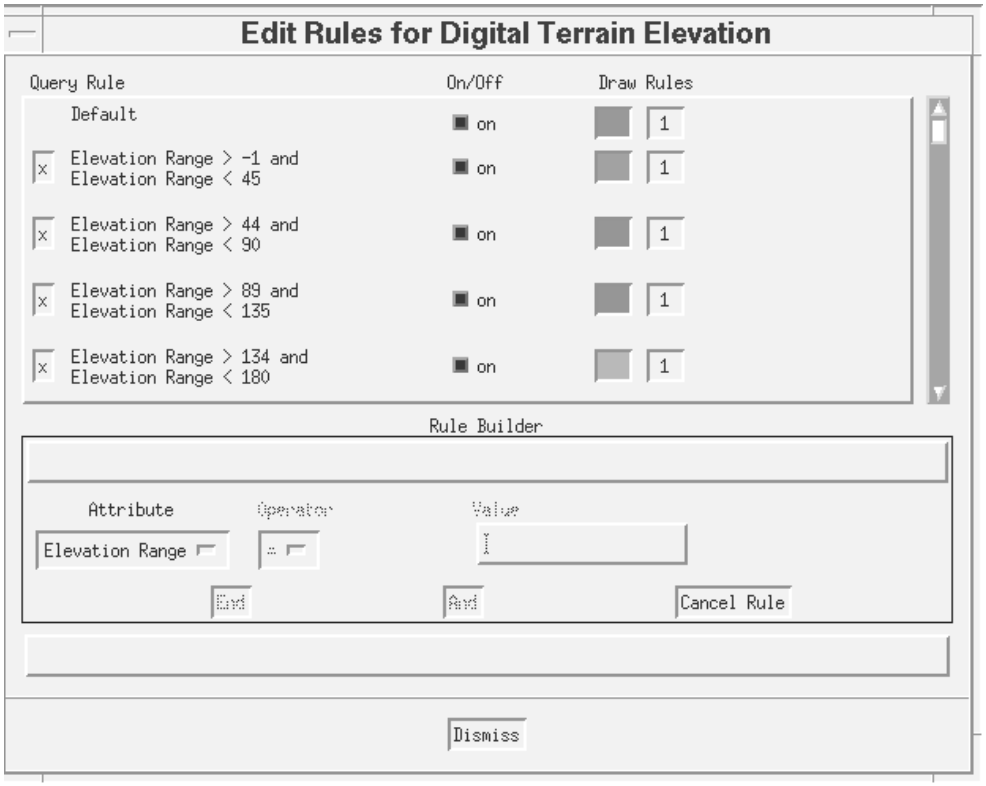

Figure 9.14-2. Edit Rules For .... Window

The EDIT RULES FOR [FEATURE] window allows you to define subsets for the selected feature and define separate drawing rules for each subset.

The EDIT RULES FOR [FEATURE] window has three columns: QUERY RULE, ON / OFF, and DRAW RULES.

QUERY RULE
Lists the map features for that map.

ON/OFF
(Toggle) Controls whether or not that feature will be drawn

DRAW RULES
Lists the drawing attributes.

1. Click on a DRAW RULE box.
2. A pop-up menu appears, providing you with a choice of colors, style, or widths depending on whether the box controls lines, colors, fill patterns, and so forth.
3. Choose a new setting by selecting the desired item from the menu.

The bottom of the EDIT RULES FOR [FEATURE] window is the RULE BUILDER. The RULE BUILDER displays columns for: ATTRIBUTES, OPERATOR, and VALUE.

ATTRIBUTES
Lists the information retrieved from the CD when the map was loaded (e.g., Row ID, Transportation Lines, Bridge Superstructure).

OPERATOR
Lists operators (<, >, and, or) to build a rule.

VALUE
Lists the criteria for which these ATTRIBUTES will be selected.

How to use the EDIT RULES Window

1. Choose an attribute from the ATTRIBUTES menu. An EDIT RULES FOR [FEATURE] appears. (For example, if you clicked on TREE AREA in the VECTOR DISPLAY window, the EDIT RULES FOR TREE AREA menu would appear.)
2. Click on ATTRIBUTES and select an attribute (e.g., VEGETATION CHARACTERISTICS). That attribute will be shown in the RULE BUILDER text window.
3. Click on VALUE and select a value (e.g., OVERRIDE). OVERRIDE is now added to the RULE BUILDER text window.
4. Select one of the buttons under the text window: END, AND, or CANCEL RULE:

END
Ends your rule building and adds your ATTRIBUTE to the QUERY RULE list.

AND
Builds a rule. Click on AND to further define your rule. In the above example, you could select AND after OVERRIDE and add another ATTRIBUTE and another VALUE to the text window.

CANCEL RULE
Removes your rule from the text window and allows you to rebuild your rule.

5. Click DISMISS to save changes and exit. When you click DISMISS, you return to the VECTOR DISPLAY window. (For our example of a TREE AREA, the • in the SWITCH column will have changed to a + because you created rules.)

6. To accept the changes from the EDIT RULES FOR [feature you selected] window, you must click APPLY in the VECTOR DISPLAY window. APPLY applies the profile but does not save it.

—Or—

To save the current profile, select SAVE CURRENT PROFILE from the PROFILES menu.

9.15 VECTOR PRODUCT FORMAT (VPF) SPATIAL QUERY

The VPF SPATIAL QUERY option allows access to specific information about map objects in a particular area. It is used only for VPF maps. The power in this mapping product lies in the scope of information for a specific map.

***Important**: Before using this option, a VPF map must be drawn on your system.*

Use the MAP CONTROL option in the MAP OPTIONS pull-down menu to view the maps that are available on your system. Choose a VPF map from the list and double click on it to draw a VPF map onto your system.

To access this window: MAP OPTIONS menu **:** VPF SPATIAL QUERY option **:** VPF SPATIAL QUERY window (Figure 9.15-1).

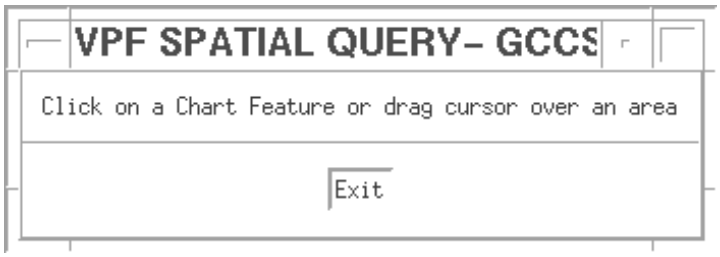

Figure 9.15-1. VPF SPATIAL QUERY Window

The VPF SPATIAL QUERY window queries you to "Click on a Chart Feature or drag cursor over an area". After you click and select an area another window appears, informing you that a there is a "Query in Progress -- Retrieving Data".

Once the data has been retrieved, the QUERY RESULT window appears, displaying a list of the features found (Figure 9.15-2).

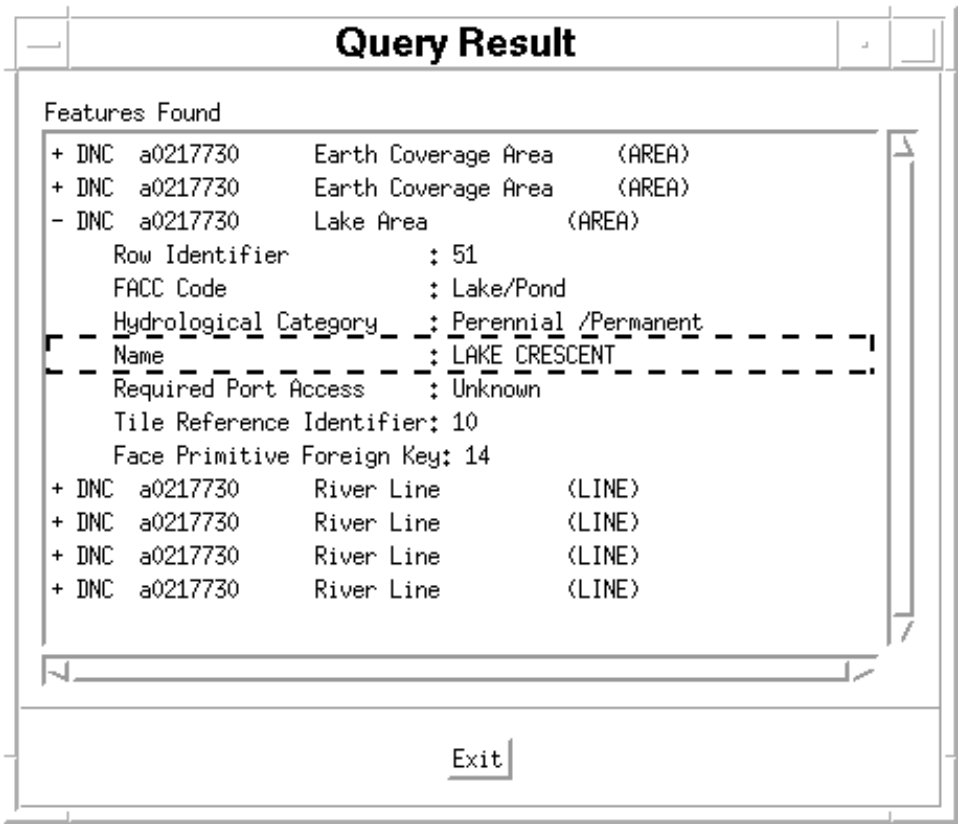

Figure 9.15-2. Query Result Window

How to use the QUERY RESULT window

The QUERY RESULT window shows the libraries and the features for each item found in the area selected.

A library is an area of coverage (e.g., general, coast, harbor, approach). Libraries can overlap, which means that an item can be in more than one library. In the MAP CONTROL window, if you click on SHOW COVERAGE, you can see where each library converges and overlaps.

Use the cursor to select (highlight) a particular feature (e.g., hydrography area) and additional information about that feature appears. Also, the particular feature is highlighted on the map (e.g., this allows you to view the extent of the hydrography area). To exit the list of information, click on the feature again.

Every feature has different attributes. The attributes for a particular feature depend on the type of information that can be qualified and quantified about that feature. Additionally, the attributes shown depend on the extent of information in the dataset.

9.16 COLORS

Use the COLORS option to modify the color of the displayed map. The colors can be adjusted separately for land masses and for water areas. This option adjusts the map colors only—tracks, PIM tracks, overlays, and other objects on the screen are shown in their normal colors.

To access this window: MAP OPTIONS menu : COLORS option : MAP COLORS window (Figure 9.16-1).

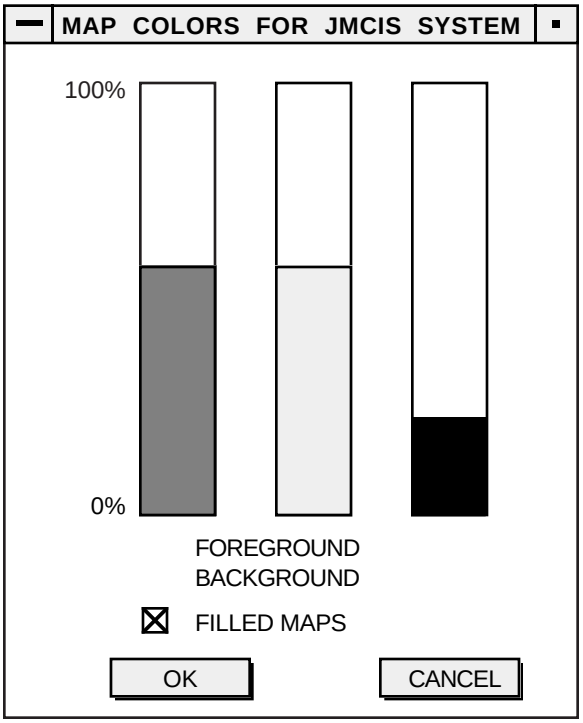

Figure 9.16-1 Map Colors for System Window

There are three color bars shown in the MAP COLORS window—red, green, and blue. For example, the bars in Figure 9.16-1 show the current color mix for the foreground filled maps (land masses).

To adjust colors:

1. Before adjusting the color, click either FOREGROUND (land masses) or BACKGROUND (bodies of water).
2. Click the individual color bars to add more or less of the three colors to the map.
   a. Click closer to 100% to add more of a particular color to the map, or closer to 0% to add less of the color.

b. The level in the bar changes, according to where it is clicked.

3. The color immediately changes on the map to reflect the new level chosen.
4. Click the FILLED MAPS checkbox to fill the land masses with the color chosen for the foreground. Leave this checkbox blank and only the outline of the land masses are colored in the foreground color.
5. Click OK to accept any changes made to the foreground and background colors, or click CANCEL to return the map colors to their previous settings.

MAP COLORS Pop-Up Menu Options

In addition to the options described in *Summary of Common Operations* (OK and CANCEL), the MAP COLORS pop-up menu also includes:

COLOR DATA BASE

Use this option to view a database of map colors, save the current color mix, or show a previously saved color mix. Select the COLOR DATA BASE option to open the SET COLOR MAP NAME window (Figure 9.16-2).

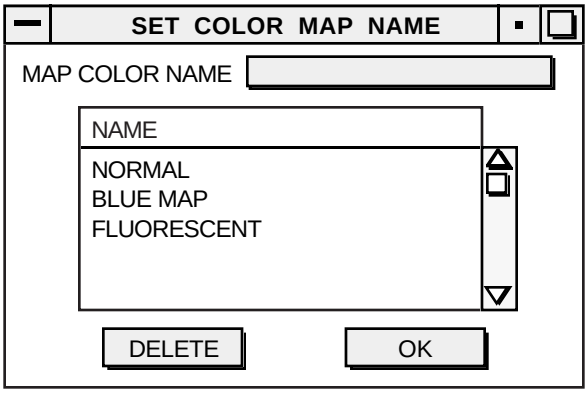

Figure 9.16-2 Set Color Map Name Window

How to use the COLOR DATA BASE option:

1. To save the current color mix, enter a name in the MAP COLOR NAME field and press RETURN. The name entered appears in the scroll list. The color mix is saved and can be recalled at any time.
2. To recall a previously saved map color mix, select the name from the scroll list and click OK. The selected map color mix appears on the tactical display the MAP COLORS window reappears.
3. To delete a map color mix from the database, select the name from the list and click DELETE. To delete all saved map colors, choose the DELETE ALL option from the pop-up menu.

4. Choose the PRINT pop-up menu option to print a copy of the map colors database list.
5. Click OK to return to the MAP COLORS window.

9.17 INTENSITY

Use the INTENSITY option to brighten or darken the current map. Only the map is affected—tracks, PIM tracks, overlays, and other plotted objects remain at their normal intensity.

To access this window: MAP OPTIONS menu : INTENSITY option : MAP INTENSITY window (Figure 9.17-1).

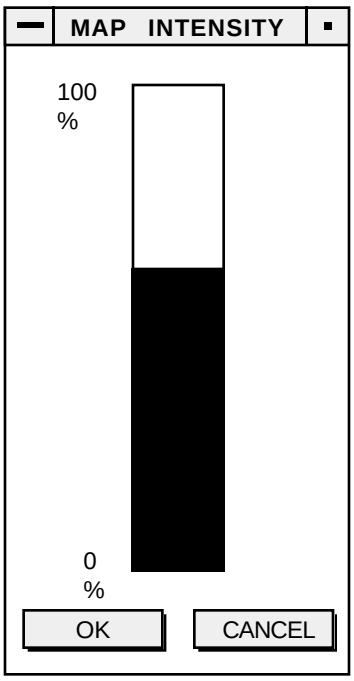

Figure 9.17-1 Map Intensity Window

The bar in the middle of the window displays the current intensity level.

To use the MAP INTENSITY option:

1. Click on the intensity bar to change the intensity of the map.
   a. Click closer to 100% to brighten the map, or closer to 0% to darken the map.
   b. The level in the bar changes according to where it is clicked.
2. The intensity immediately changes on the map to reflect the new level.

3. Click OK to accept the intensity level settings, or click CANCEL to return the level to the previous settings.

MAP INTENSITY Pop-Up Menu Options

In addition to the options described in *Summary of Common Operations* (OK and CANCEL), the MAP INTENSITY pop-up menu also includes:

SAVE

Saves the current intensity level and replaces the previously saved level. This option retains *only* the last intensity level saved.

RECALL

Recalls the most recently saved intensity level.

9.18 COUNTRY COLORS

Use the COUNTRY COLORS option to change the color of an individual country, or a group of countries and plot them in the selected colors.

To access this window: MAP OPTIONS menu : COUNTRY COLORS option : LIST COUNTRIES window (Figure 9.18-1).

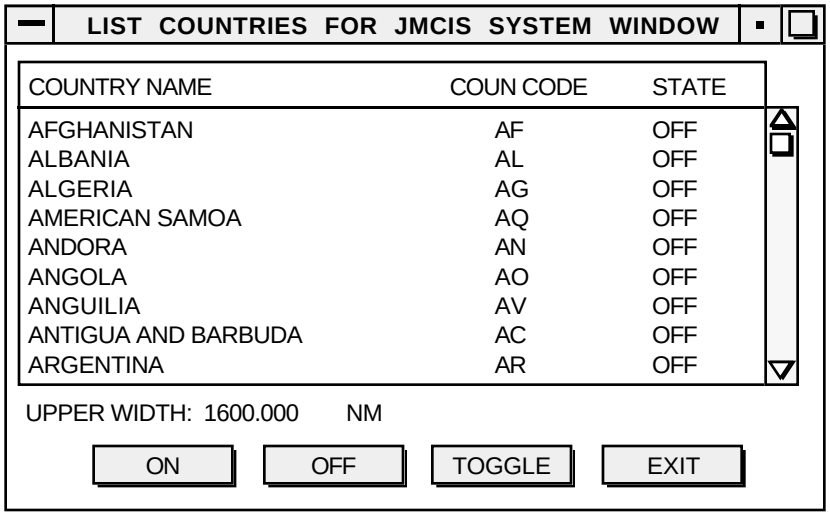

Figure 9.18-1 List Countries for System Window

About the LIST COUNTRIES window:

The LIST COUNTRIES window scroll list shows the name of each country, the two-character country code, and the current on / off state for each.

- Colors for any country shown in the scroll list may be toggled ON or OFF.
  - If turned on, the country is plotted in its assigned color.
  - Assigning country colors is described in *Change Country Color*.
- The UPPER WIDTH field shows the greatest width at which the color is plotted.
  - The current map width is shown in the lower-right corner of the screen.
  - If the map width is greater than the value in the UPPER WIDTH field, the color is not plotted.

LIST COUNTRIES Window Buttons

ON or OFF—state.

1. Select one or more countries from the list.
2. Click ON or OFF to turn the county color on or off for the selected countries.

TOGGLE—the display status.

1. Select one or more countries from the list.
2. Click TOGGLE to change those selected countries that are turned on to off and those selected countries that are turned off to on.

EXIT—the COUNTRY COLORS option and close the window.

LIST COUNTRIES Window Pop-up Menu Options

Pop-up menu options (described in *LIST COUNTRIES Pop-up Menu*): ALL COUNTRIES (ON, OFF, and TOGGLE), DEFAULT (RESTORE and SAVE), EXIT, MODIFY, PRINT LIST, REFRESH, SELECT (ALL, AREA, and ADD AREA), SELECTED (ON, OFF, and TOGGLE), and UNSELECT (ALL and AREA).

9.18.1 CHANGE COUNTRY COLOR

Each country in the list has a pre-assigned color. To change the color for a country:

1. Select the country from the list in the LIST COUNTRIES window.
2. Double-click on the country name (or use the MODIFY pop-up option) to open the COUNTRY COLORS window (Figure 9.18-2).

3. Select a new color in one of the following ways:
   a. Click on the color in the COLOR PALETTE box. It appears in the CURRENT COLOR box.
   b. Enter the name of the color in the SET COLOR field and press RETURN. If the system understands the color choice, it appears in the CURRENT COLOR box; otherwise it is ignored.
   c. Set an EXACT color (described below).
4. Click OK to accept the color, or click CANCEL to discard it.

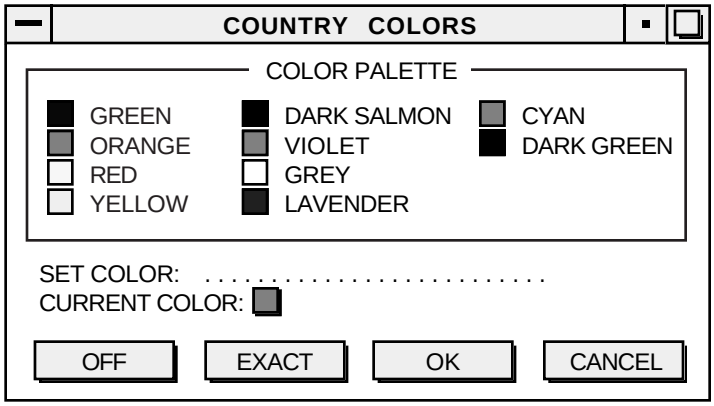

Figure 9.18-2 Country Colors Window

If desired, use OFF to prevent the color from plotting. This is equivalent to clicking OFF in the LIST COUNTRIES window.

To set EXACT colors

1. Click EXACT to open the EXACT COLOR BARS window (Figure 9.18-3).
2. Click the color bars to adjust the color.
   a. Click closer to 100% to add more of a particular color to the map, or closer to 0% to add less of the color.
   b. The level in the bar changes, according to where it is clicked.
3. Click OK to accept the color, or click CANCEL to discard the changes.

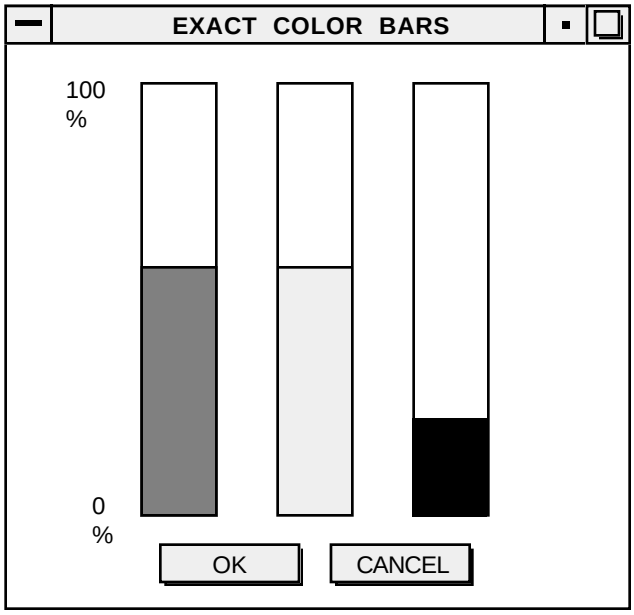

Figure 9.18-3 Exact Color Bars Window

9.18.2 LIST COUNTRIES POP-UP MENU

In addition to the options described in *Summary of Common Operations* (EXIT), the LIST COUNTRIES pop-up menu also includes:

DEFAULT

The DEFAULT pop-up option contains two choices: RESTORE and SAVE.

SAVE—save the current values for the on / off state and colors for all countries in the list. These values will be retained as the default values.

RESTORE—restore the saved default values. Changes all country color values and states to those that were saved with the SAVE choice from the DEFAULT pop-up option.

SELECT

The SELECT pop-up option contains three choices: ALL, AREA, and ADD AREA. Use any of these choices to select multiple countries in the list in the LIST COUNTRIES window.

ALL—select all countries in the list.

AREA—use the pointer on the tactical display to surround (select) a group of countries.

Figure 9.18-4 Crossed Arrows Pointer Symbol

1. Click AREA to change the pointer to a crossed arrows symbol (Figure 9.18-4).
2. Hold down the left trackball button, move the pointer to create a box, and release the button to complete the selection.
3. All countries completely or partially inside the box are selected and are highlighted in the LIST COUNTRIES window scroll list.

ADD AREA—used to surround an additional group of countries to select while keeping the previously chosen countries selected. This works in the same way as the AREA option.

UNSELECT

The UNSELECT pop-up option contains two choices: ALL and AREA. Use either to deselect multiple countries in the LIST COUNTRIES window scroll list.

ALL—deselect all the countries in the list.

AREA—use the pointer on the tactical display to surround (select) a group of countries.

1. Click AREA to change the pointer to a crossed arrows symbol (Figure 9.18-4).
2. Hold down the left trackball button, move the pointer to create a box, and release the button to complete the selection.
3. All countries completely or partially inside the box are deselected and are no longer highlighted in the LIST COUNTRIES window scroll list.

ALL COUNTRIES

The ALL COUNTRIES pop-up option contains three choices: ON, OFF, and TOGGLE.

ON —turn the colors on for all countries in the list.

OFF—turn the colors off for all countries in the list.

TOGGLE—switch the on/off state to the opposite state for all countries in the list.

SELECTED

The SELECTED pop-up option contains three choices: ON, OFF, and TOGGLE.

ON—turn the colors on for all selected countries in the list.

OFF—turn the colors off for all selected countries in the list.

TOGGLE—switch the on/off state to the opposite state for all selected countries in the list.

MODIFY

Use the MODIFY pop-up option to change the color for a selected country. Described in *Change Country Color*.

REFRESH

Use the REFRESH pop-up option when the country colors don't seem to display properly.

PRINT LIST

Use the PRINT LIST option to generate a printed report for the countries in the LIST COUNTRIES window with the country name, country code, and on/off state.

9.19 FEATURES

The FEATURES option lists various map features that can be plotted.

- Each feature can be toggled on or off.
- Features are dependent on system map data.

Common features available on most systems:

- Contours
  - This entry appears when DTED data is loaded. (DTED data is loaded with the OTHER CD MAPS option from the CHART menu.)
  - A contour line is defined as a line on the map representing a constant altitude. Every "nth" contour line is defined as an index line.
- Country Colors
  - All country color features, except color, are set with this option.
  - The country color is set with the COUNTRY COLORS option from the MAP OPTIONS menu.
- Grid Lines
  - The number and spacing of grid lines varies, depending on the map's latitude and longitude, the width, and the projection used.

- Bottom Contours
  - Represent subsurface mountain ranges, measured in feet, ranging from Level 50 to Level 10000. This feature aids in detecting bottom objects such as sea mounts and wrecks.
- Political Boundaries
  - Can designate boundaries, according to political considerations. For example, the boundary between North Korea and South Korea.
- Rivers
  - Rivers appear in areas of the world where river data sets are available.
- Roads
  - Roads appear only in areas of the world where road data sets are available. At this time, road data sets are available in very limited areas.

To access this window: MAP OPTIONS menu : FEATURES option : FEATURES IN JMCIS SYSTEM window (Figure 9.19-1).

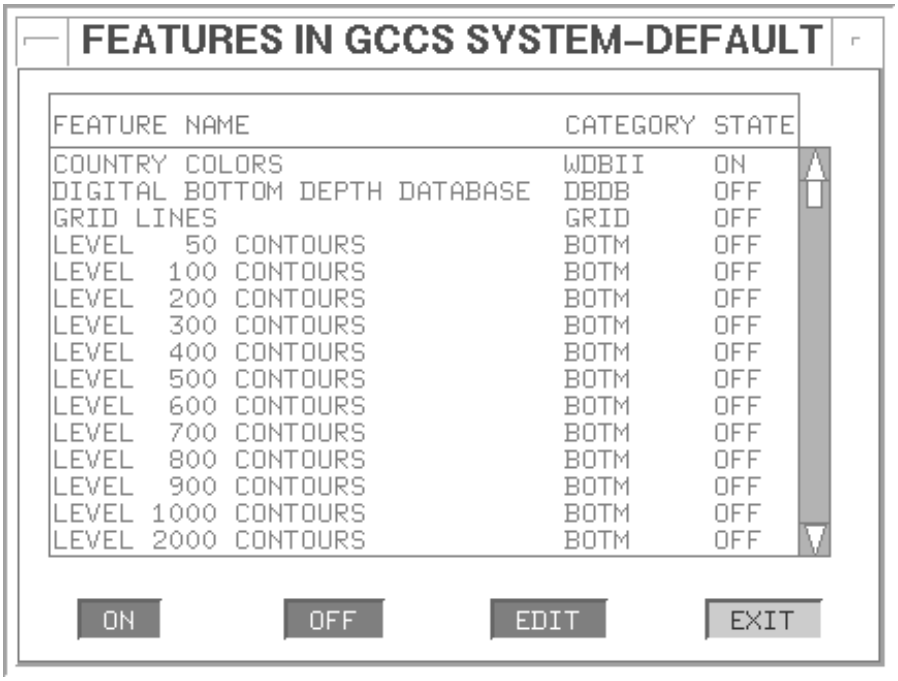

Figure 9.19-1 Example Features Window

FEATURES Window Buttons

ON or OFF—toggle.

1. Select one or more features from the list.
2. Click ON or OFF to plot or remove the selected features, or double-click on the feature name to change the state, OFF / ON.

EDIT—a map feature. Described in *Edit Map Features*.

EXIT—the FEATURES option and close the window.

FEATURES Window Pop-up Menu Options

Pop-up menu options (described in *FEATURES Pop-up Menu*): ACTIVATE, DEACTIVATE, EDIT, EXIT, PRINT LIST, RECALL, and SAVE.

FEATURES Window Fields

The following columns of information are displayed for each feature:

FEATURE NAME
Name of the feature.

CATEGORY
Map product type used for the feature.

STATE
Displays the on / off state of the feature.

9.19.1 EDIT MAP FEATURES

The fields in the FEATURE EDIT WINDOW vary with each feature, but the behavior of the window is the same for all features.

Contours has an additional edit window, described in *CONTOURS EDIT Window*.

How to use the FEATURE EDIT window:

1. Select a map feature in the FEATURES window.
2. Click EDIT to display the FEATURE EDIT WINDOW (window) containing appropriate data for the selected map feature.

3. Make changes to the feature.
   a. For fields that have a list box in front of them, select a new value from the list.
   b. For fields without a list box, type a new value.
   c. To activate a feature, toggle its checkbox ON. Use ALL to toggle all checkboxes on, or NONE to toggle them off.
   d. To see a feature on the display, click APPLY.
4. Click OK to save the changes and close the window, or click EXIT to discard the changes since the last APPLY and close the window.

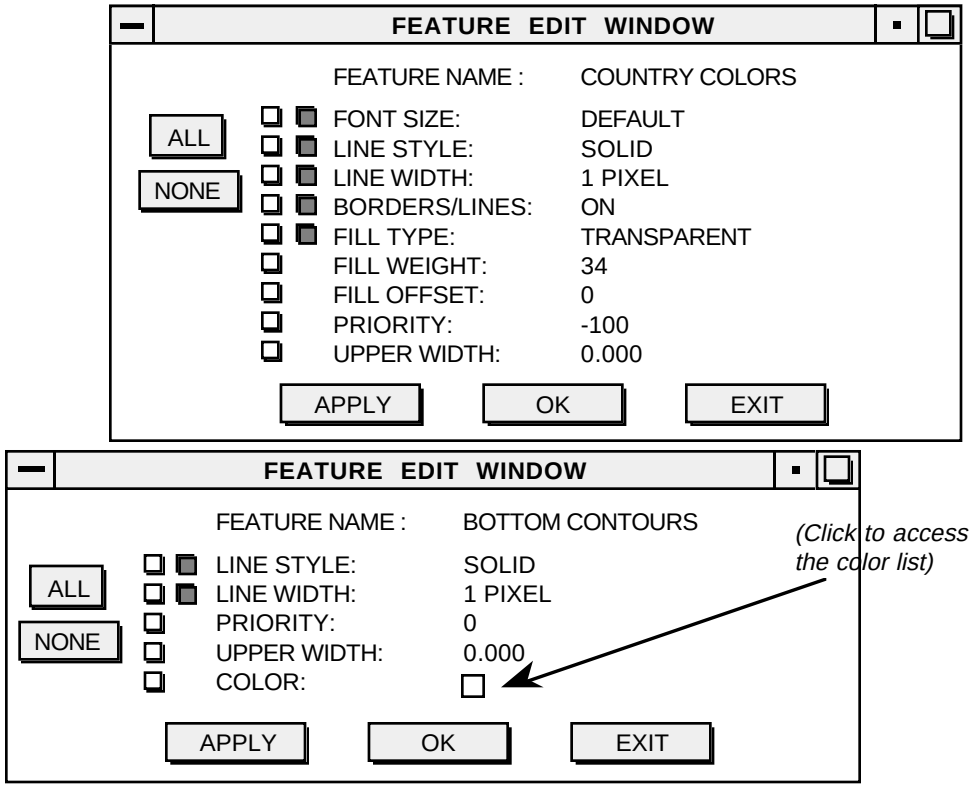

Figure 9.19-2 Sample Feature Edit Windows

Figure 9.19-2 illustrates the edit windows for the COUNTRY COLORS and BOTTOM CONTOURS features. The fields for each feature edit window will vary, but are a subset of the following:

BORDERS/LINES
Turns the country border lines ON or OFF. This option only has an effect when the FILL TYPE is set to EMPTY. If border lines are turned off, the lines disappear but the country names remain displayed.

COLOR

Adjusts the color of the feature on the tactical display (except for COUNTRY COLORS, which must be set using the COUNTRY COLORS option from the MAP OPTIONS menu).

Click the color box to the right of the COLOR field to show a list of available color choices.

FILL OFFSET

Adjusts the shade pattern when TRANSPARENT is selected for FILL TYPE.

1) Enter a value from 0 to 100 for the fill offset.

2) The effect of the values entered in this field is not very noticeable, so it is recommended that the default value of 0 be used for this field.

FILL TYPE

Adjusts the look of the fill type. Choices:

EMPTY—Colors are turned off. Only the country borders and names are displayed, if those are set to be displayed.

OPAQUE-—Colors are shown in bright, solid tones.

TRANSPARENT—Colors are shown in a lighter shades of their selected colors. The exact lightness or darkness of the color can be adjusted through the FILL WEIGHT field.

FILL WEIGHT

Adjusts the lightness or darkness of the color shading when TRANSPARENT is selected for FILL TYPE.

1) Enter a value from 0 to 100 to specify the percentage of color pixels.

2) If 0 is chosen, there will be no color fill.

3) If 100 is chosen, the fill will be almost as dark as OPAQUE. (Default value is 34.)

FONT SIZE

Adjusts the font size. Choices: OFF, DEFAULT, TINY, SMALL, MEDIUM, LARGE, and HUGE. If OFF is chosen, nothing is printed.

LINE STYLE

Adjusts the look of lines. Choices: SOLID, DASHED, DOT-DASHED, DOTTED, and DOUBLE-DASHED.

LINE WIDTH

Adjusts the thickness of lines. Click the list box in front of the LINE WIDTH field to view the choices.

PRIORITY

Specifies how the feature is shown in relation to other features. Features with a high-priority number display on top of features with a low priority number.

Set the priority for country colors lower than the priority for the other features so they can plot on top of the country color.

UPPER WIDTH

Specifies the maximum map width at which the feature appears. For example, if a value of 10,000 is set in this field, the feature appears only when the tactical display view is 10,000 NM or less. If this field is set to 0.000, the feature appears at any map width.

9.19.1.1 CONTOURS EDIT Window

A CONTOUR entry appears in the FEATURES window scroll list when DTED data is loaded. (DTED data is loaded with the OTHER CD MAPS option.)

- A contour line is defined as a line on the map that represents a constant altitude.
- Every “nth” contour line is defined as an index line.

Contour line features such as line style are edited in the same manner as other features—selecting the contour entry and clicking the EDIT button in the FEATURES window.

The CONTOURS EDIT window enables the user to modify the units, spacing, and index interval of the contour lines.

To use the CONTOURS EDIT window:

1. *Double-click* on the contour entry in the FEATURES window, to open the CONTOURS EDIT window (Figure 9.19-3).
2. Enter new values.
3. Click APPLY to see the effect of the changes.
4. Click OK to save the changes and close the window, or click EXIT to discard changes made since the last APPLY and close the window.

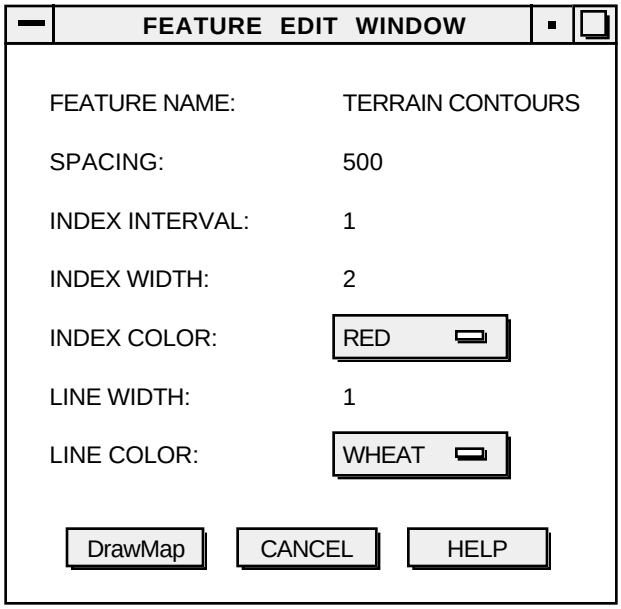

Figure 9.19-3 CONTOURS EDIT Window

The CONTOURS EDIT window contains the following fields:

FEATURE NAME
Name of the feature.

SPACING
The spacing between adjacent contour lines.

INDEX INTERVAL
The interval used to determine which contour lines are index lines.

LINE WIDTH, INDEX WIDTH
The width (in pixels) of the contour and index lines.

LINE COLOR, INDEX COLOR
The color of contour and index lines. Choices are listed when the select button is clicked.

9.19.1.2 Edit Digital Bottom Depth Database Feature

Select the DIGITAL BOTTOM DEPTH DATABASE option in the FEATURES window and click EDIT to open the MAP CONTOURS window (Figure 9.19-4).

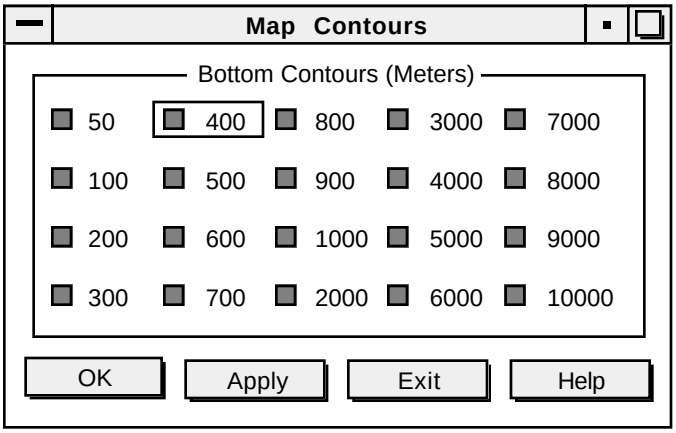

Figure 9.19-4. Map Contours Window

How to use the MAP CONTOUR window:

1. Click a checkbox to edit the required bottom contour "number."
2. The FEATURE EDIT WINDOW (window) for BOTTOM CONTOURS opens.
3. Make changes to the feature.
   a. For fields that have a list box in front of them, select a new value from the list.
   b. For fields without a list box, type in a new value.
   c. To activate a feature, toggle its checkbox ON. (ALL toggles all checkboxes on, or NONE toggles all checkboxes off).
   d. Click APPLY to see a feature on the tactical display.
4. Click OK to save the changes and close the window, or click EXIT to discard the changes since the last APPLY and close the window.

9.19.2 FEATURES POP-UP MENU

In addition to the options described in *Summary of Operations* (ACTIVATE, DEACTIVATE, EDIT, EXIT and PRINT LIST), the FEATURES pop-up menu also includes:

SAVE

Saves all current feature settings, and can be used to retrieve saved feature settings. However, any previous SAVE settings are overwritten when this option is used.

RECALL

Retrieves feature settings saved with the SAVE option. When RECALL is used, the current feature settings are overwritten by the saved feature settings.

9.20 CHART MONITOR

Use CHART MONITOR to see what portion of the world is being viewed on the tactical display.

Select CHART MONITOR to open the MONITORING JMCIS window, which displays a whole-world map. The portion of the world currently in view is shown as a shaded, pink area.

Double-click the close box to exit the MONITORING JMCIS window.

9.21 LOS PROFILE

The LOS PROFILE option provides a graphic elevation profile of the line of sight between two selected points on the display. DTED map data is required for this option.

To access this window: (First display a DTED map.) MAP OPTIONS pull-down menu **:** LOS PROFILE option **:** DTED PROFILE window (Figure 9.21-1).

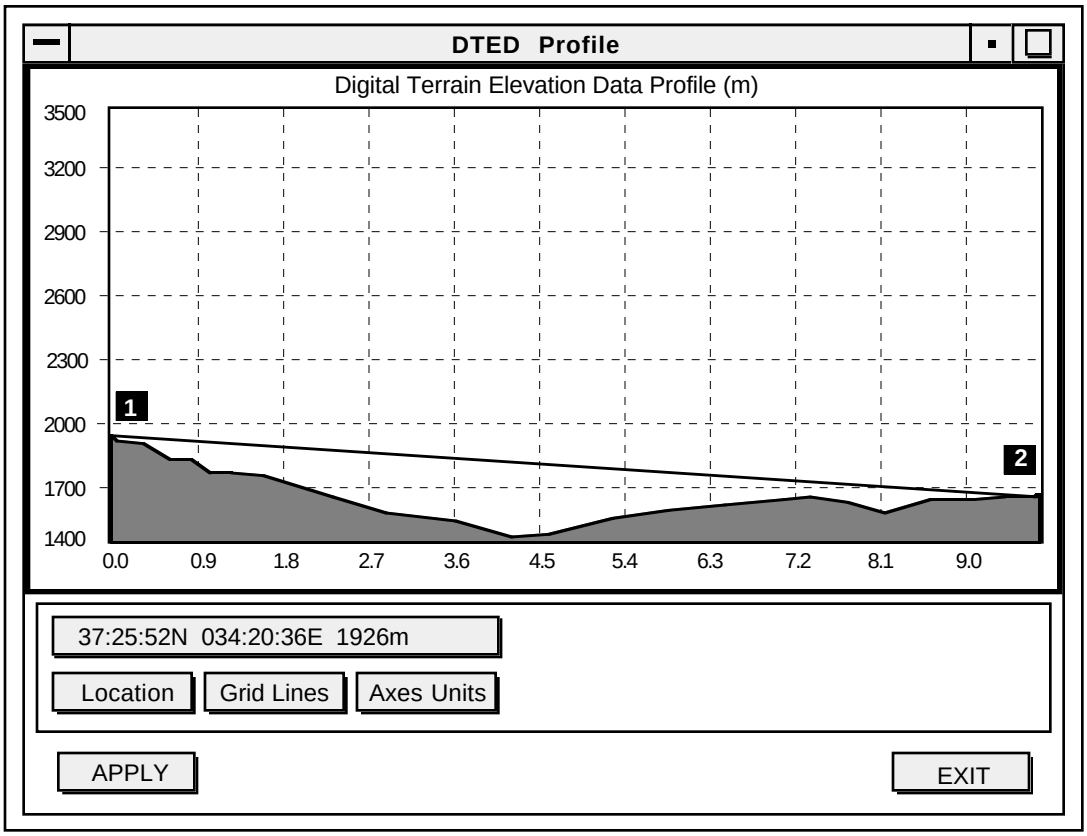

Figure 9.21-1 DTED Line-of-Sight Window (with Contours Engaged)

In Figure 9.21-1, the DTED PROFILE window is shown *with* CONTOUR lines engaged. (See the *FEATURES* section for details on the CONTOURS option.)

To use the LOS PROFILE option:

1. Select two points on the display:
   a. Point 1: Position the arrow on the first point and click the *left trackball button*.
   b. Point 2: Position the arrow on the second point and *click the middle trackball button*. (If the trackball does not have a middle button, then the right trackball button can be used.)
2. Click APPLY to plot the DTED profile within the window.
   - The values on the profile graph reflect the elevation and distance of the points selected.
3. Use the buttons—LOCATIONS, GRID LINES, and AXIS UNITS—to manipulate the Line of Sight view. These are described and illustrated in the following sections.
4. Click EXIT to leave the option.

9.21.1 LOCATION

Click LOCATIONS to open the LOCATIONS window (Figure 9.21-2).

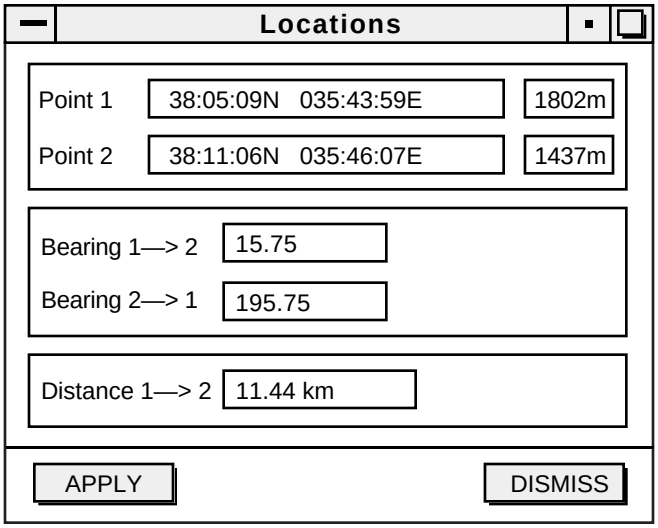

Figure 9.21-2 Locations Settings Window

The LOCATIONS window provides a readout of Points 1 and 2 by latitude, longitude, elevation, bearing, and range.

APPLY—the window fields and profile graph change to reflect new values. The LOCATIONS window remains open to change other values.

DISMISS—closes the window and discards any changes made since the last APPLY.

POINTs

The lat/long and elevation values for Points 1 and 2. To change the lat/long of either point, enter a new value in the field. APPLY fills in the elevation for the new lat/long.

BEARINGs

The bearings (in degrees) for the selected points. To change the bearing of Point 1-to-Point 2 or Point 2-to-Point 1, enter a new value in the field. APPLY modifies the corresponding lat/long and elevation.

DISTANCE

The distance from Point 1 to Point 2. When a smaller number is entered, APPLY changes the profile graph to show only the specified portion of the distance from Point 1 to Point 2.

9.21.2 GRID LINES

Click GRID LINES to open the GRID LINES window (Figure 9.21-3).

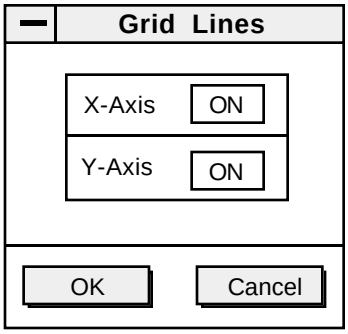

Figure 9.21-3 Grid Lines Toggle Window

Use GRID LINES to determine whether or not grid lines will be plotted. X- and Y-axis settings may be toggled either ON or OFF.

Click OK to accept the toggle settings, or click CANCEL to discard any changes.

9.21.3 AXIS UNITS

Click AXIS UNITS to open the AXIS UNITS window (Figure 9.21-4).

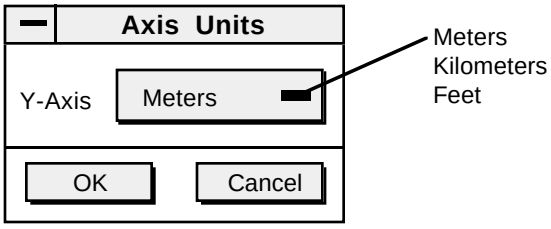

Figure 9.21-4 Axis Units Window

Axis Units specifies the type of units to use for elevation and distance—meters (default setting), kilometers, or feet.

Click OK to accept any changes, or click CANCEL to discard changes.

Notes